

Light vanished. This enlargement of the fringes was so great that the rays which go to the innermost fringe seemed to be bent above twenty times more when this fringe was ready to vanish, than when one of the Knives was taken away.

And from this and the former Observation compared, I gather, that the Light of the first fringe passed by the edge of the Knife at a distance greater than the eight-hundredth part of an Inch, and the Light of the second fringe passed by the edge of the Knife at a greater distance than the Light of the first fringe did, and that of the third at a greater distance than that of the second, and that of the streams of Light described in the fifth and sixth Observations passed by the edges of the Knives at less distances than that of any of the fringes.

O B S. VIII.

I caused the edges of two Knives to be ground truly straight, and pricking their points into a board so that their edges might look towards one another, and meeting near their points contain a rectilinear Angle, I fastened their handles together with Pitch to make this Angle invariable. The distance of the edges of the Knives from one another at the distance of four Inches from the angular point, where the edges of the Knives met, was the eighth part of an Inch, and therefore the Angle contained by the edges was about 1 degr. 54'. The Knives thus fixed together I placed in a beam of the Sun's Light, let into my darkened Chamber through a Hole the 42th part of an Inch wide, at the distance of

of ten or fifteen Inches, which passed betwixt upon a smooth wall one Inch, or an Inch and a half, the fringes made by the edges of the Knives to those edges where they met in Angle, the edges of the Knives they ended without a Ruler was held against the Paper, the fringes as they approached they crossed one another than before.

Whence I gather, that the fringes pass by the edges by the approach of the rays are there determined which other Knife increased.

When the rays are at the distance of the dark line betwixt the shadow of one Knife and the first and second fringes met with one another of an Inch from